AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph on page 13 beginning at line 30 and ending at line 31 with the following amended paragraph.

FIG. 8 graphically depicts the ~~in-line~~in-place addressing technique ~~for the decoder~~that could be included in decoders of the type shown in FIG. 6B to arrive at a decoder providing an aspect of the SISO device described herein.

Please replace the paragraph on page 17 beginning at line 30 and ending on page 18 at line 6 with the following amended paragraph.

The S/P-CCC decoder of the present invention can be implemented using hardware to calculate the path and branch metrics and to process information as per a trellis while using the ~~in-line~~in-place addressing technique discussed above. The S/P-CCC decoder of the present invention can also be implemented with a programmed general purpose computer or processor which performs the functions of the S/P-CCC decoder (including the interleaving and deinterleaving operations) based on programmed instructions. The paths coupling the Inner/Outer SISO processor can be electrical, electronic, magnetic, optical or any other paths used to convey signals.

Please replace the paragraph on page 18 beginning at line 8 and ending at line 22 with the following amended paragraph.

The present invention can be implemented as a method in which the first step is to receive information or code words. The method has two mode of operations. IN the first mode the method processes information to perform Serial Convolutional Code decoding and in the second mode the method perform Parallel Convolutional Code decoding. In both modes of operation the method uses an ~~in-line~~in-place addressing technique to process the received information as per a defined trellis. In particular, the received information is processed as per an N-state Radix-K trellis during which path metrics and branch metrics are calculated to allow the processing to traverse from one set of states to another set of states as defined by the trellis. As processing is performed per the trellis, the method can use all or a portion of the N states to perform the ~~in-line~~in-place addressing technique during a processing time period or a clock cycle. Further, as information is processed per the trellis, the method of the present

invention uses a defined block of memory to retrieve and store states of the trellis; that is, the same memory block is used for storing and retrieving states. The SOURCE states are retrieved and the DESTINATION states are stored in the same memory block.